

OLD HIGHWAY 40
FRUIT STAND



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
25 FUNSTON ROAD
KANSAS CITY, KANSAS 66115

October 18, 1989

MEMORANDUM

SUBJECT: Trip Report and Data Summary
Hellwig Retail Fruit Market
St. Louis County, Missouri

TO: John R. Helvig
Chief, EP&R/ENSV
EP&R/ENSV

FROM: Reta E. Roe *Reta E. Roe*
FIRE/EP&R/ENSV

The Hellwig Retail Fruit Market is located off the south side of Old Highway 40 near the St. Louis County Correctional Institution. This area used to be known as Gumbo. The area is mostly farming with some industrial and residential areas and is close to the Spirit of St. Louis Airport.

The site is on flat to gently sloping ground and in an area that is largely agricultural with some industrial activity.

Site History

The Hellwig Retail Fruit Market is on the south side of Chesterfield Airport Road and has been in business for over 20 years. The site has been leased by Denny Moore for over 8 years and was formerly owned by the Hellwig brothers, George and Henry. Currently the property is owned by Anna Hellwig (Mrs. Henry). Mr. George Hellwig recalls that the parking lot at the fruit stand was once sprayed with oil.

This site is in the flood plain and sections are not numbered on the county plat maps. This makes descriptions of actual plats difficult.

Gary Lambarth and Jesse Orr reported spreading oil on a site during the early 1970s in this location which was described as "a group of fruit stands."

Objectives and Scope of Field Work

Preliminary sampling for dioxin for the purpose of determining whether the soil on the site had been sprayed and contaminated with dioxin was done on September 26, 1989. Soil samples were collected for dioxin analysis. Discrete samples were collected where the unpaved street used to be. Sampling involved coring about 6 to 8 inches beneath the asphalt paving. The core samples were taken from soil adhering to the drill.

Soil samples were collected in whirlpak bags and then enclosed in plastic bags. The samples were then packed in coolers for shipment to the laboratory the next day.

Samples were documented in the field on field sheets. Photodocumentation was also made of the sampling sites. The samples were sent air express. A chain-of-custody was kept on the samples.

A field blank, laboratory blank, and spike were used for quality control (QC). Frequent audit samples are also used by EPA in the Contract Lab Program. Data has been reviewed and validated in house.

Sampling Results

<u>Sample #</u>	<u>Location</u>	<u>2,3,7,8-TCDD*</u>
41TX3 { 001C	Hellwig-Site Two Blank	0.300U**
002C	Hellwig-East Side of Parking Drive	51.759
003C	Hellwig-Center of Parking Drive	33.816
004C	Hellwig-West Side of Parking Drive	127.725
005C	Hellwig-North end of West Driveway	99.446
006C	Hellwig-South end of West Driveway	17.345

*All units are in ppb

**Below detection levels

This sampling trip was a preliminary screening effort to indicate whether an investigation should be initiated. The results of the preliminary screening indicated the need for an immediate hazard assessment.

Immediate Hazard Assessment

On October 5, 1989, EPA personnel did further investigation and sampling. A meeting was held with Denny Moore, tenant, to explain the need for an immediate response, and another meeting was held with Mrs. Hellwig and her attorney to explain the response and possible alternatives.

The purpose of the October 5, 1989, sampling was to determine whether the contamination was confined under the chip-and-seal coating on the parking area/driveways or whether contaminated soil and dust was on the surface of these areas and had possibly been tracked or blown into the building. The area and building were also measured to aid in future planning for the 95 percent confidence sampling.

All sampling was conducted after the business had closed for the day so that sampling personnel would not interfere with the usual course of business.

Wipe samples were taken from the interior and exterior walls, interior fixtures, and, at the request of health personnel, from the pumpkin display in the parking lot. Wipe samples were taken on 40 micron filter paper which had been dampened with distilled water and wiped across the surface. These wipe samples were then packed in 8-ounce glass jars. The jars were packed in plastic bags and placed in a cooler for shipment to the laboratory for analysis. Because of the unusual configuration of the items wiped, no grid was used, although a 2,500-square-centimeter area was estimated.

Sweep samples were also taken of the three distinct areas of the building, both side parking areas, and the front drive/parking area. Sweep samples were collected with a small whisk broom and dustpan and placed inside 8-ounce glass jars. The glass jars were placed inside plastic bags and packed in coolers for shipment to the laboratory for analysis.

Times and locations of all samples were documented, and photodocumentation of locations was made until it became too dark for the camera. A chain-of-custody was kept on the samples. Samples were all packed inside a cooler for air shipment.

Results of the Immediate Hazard Sampling*

9CPXE#

<u>Sample #</u>	<u>Location</u>	<u>Type</u>	<u>Results</u>
013W	Interior Wall By Phone	Wipe	0.400U**
014W	Countertop near Cash Register	Wipe	0.400U
015W	Light Fixture Inside Building	Wipe	0.400U
016W	Fan Inside Building	Wipe	0.400U
023W	Cooler Case Inside Building	Wipe	0.400U
024W	Exterior Wall	Wipe	0.400U
025W	Pumpkin in Parking Lot Display	Wipe	0.400U
026W	Blank	Wipe	0.400U
001S	Back Third of Building	Sweep	5.549
002S	Middle Part of Building	Sweep	0.916
003S	Front Part of Building (Retail)	Sweep	0.365
004S	West Driveway about midway	Sweep	3.255
005S	West Driveway--North End	Sweep	2.431
006S	East Driveway	Sweep	0.300U
007S	North Driveway/parking--East Side	Sweep	1.979
008S	North Driveway/Parking--West Side	Sweep	175.791

*Units for wipe samples are in picograms/square centimeter
Units for sweep samples are in nanograms/gram

**U denotes value below detection level

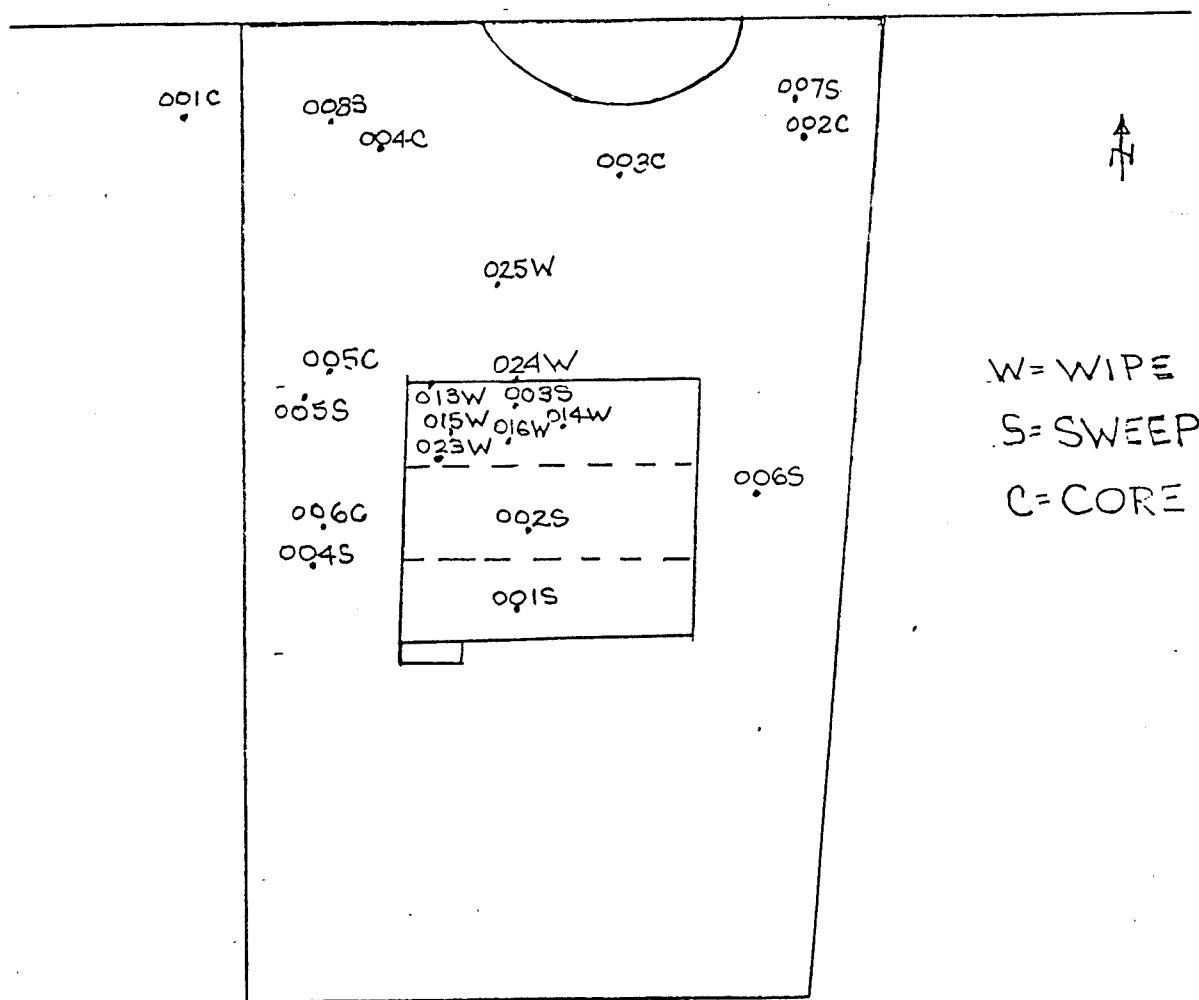
Conclusions/Recommendations

All the wipe samples were below detection levels, but the sweep samples indicate that the chip-and-seal coating is not containing the contamination. A full investigation, including site survey and 95 percent confidence sampling, will be scheduled in a timely manner.

Attachments

cc: Cheryle Micinski, CNSL
Kerry Herndon, SPFD

KEY TO SEPT 26 AND OCT 3 SAMPLING



NOT TO SCALE

MEASUREMENTS AND LOCATIONS ARE APPROXIMATE

LAB: TMS
CASE: 12879 BATCH: A
INSTRUMENT ID: A
TRANSMISSION: A DATE: 10/07/89

GC/MS/MS FINAL DATA REPORT

FILE RECEIVED DATE: 10/06/89
TIME: 2217

SMO SAMPLE #	EPA SAMPLE #	ANALYSIS DATE	ANALYSIS TIME	RATIO 257/259	SURROGATE ACC	TCDD CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
GMBLANK	BLANK093M	10/06/89	1816	0.50*	92.30	0.300 U		V	NG/GM	
IG BLANK	BLANK094M	10/06/89	2014	1.14	92.44	0.400 U		V	PG/CM2	
G101801	CPXEH001	10/06/89	1855	1.04	94.74	5.549		V	NG/GM	
G101802	CPXEH002	10/06/89	1910	1.05	91.07	0.916		V	NG/GM	
G101803	CPXEH003	10/06/89	1919	1.00	95.32	0.337		V	PG/CM	
G101804	CPXEH004	10/06/89	1929	1.03	93.11	3.255		V	NG/GM	
G101805	CPXEH005	10/06/89	1938	1.03	91.50	2.431		V	NG/GM	
G101806	CPXEH006	10/06/89	1947	0.82*	91.61	0.300 U		V	NG/GM	
G101807	CPXEH007	10/06/89	1956	1.03	92.65	1.979		V	NG/GM	
G101808	CPXEH008	10/06/89	2005	1.02	119.94	175.791		V	NG/GM	
G101309	OBN55147P	10/06/89	1826	1.01	92.88	1.258		V	NG/GM	
G101308	OBN58197F	10/06/89	1834	0.48*	93.06	0.300 U		V	NG/GM	
G101307	OBN59308N	10/06/89	1844	1.01	95.45	1.041		V	NG/GM	
G101813	CPXEH013	10/06/89	2022	3.84*	91.15	0.400 U		V	PG/CM2	
G101814	CPXEH014	10/06/89	2029	2.28*	91.38	0.400 U		V	PG/CM2	
G101815	CPXEH015	10/06/89	2039	0.67*	91.73	0.400 U		V	PG/CM2	
G101816	CPXEH016	10/06/89	2047	1.49*	91.11	0.400 U		V	PG/CM2	
823	CPXEH023	10/06/89	2055	0.77*	91.73	0.400 U		V	PG/CM2	
G101824	CPXEH024	10/06/89	2104	0.82*	90.77	0.400 U		V	PG/CM2	
G101905	CPXEH025	10/06/89	2111	0.97	91.01	0.400 U		V	PG/CM2	
G101906	CPXEH026F	10/06/89	2118	1.63*	91.11	0.400 U		V	PG/CM2	
G101907	OBN47110P	10/06/89	2152	1.02	91.34	2.967		V	PG/CM2	

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT
- # SIGNAL TO NOISE RATIO OUT ON INTERNAL STD

SMO QUALITY CONTROL SAMPLE CODES:

- P RERUN DUE TO PERFORMANCE SAMPLE
- Q REQUESTED RERUN
- R AUTOMATIC RERUN

EPA QUALITY CONTROL SAMPLE CODES:

- D DUPLICATE SAMPLE
- E ENVIRONMENTAL BLANK
- F FIELD BLANK
- I SPIKE
- J PERFORMANCE EVALUATION SAMPLE

EPA RERUN CODES:

- A AUTOMATIC RERUN